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IS SOCIETY A PERSON?

ACCORDING to Durkheim, "if there is to be any morality, or system of duties and obligations, *society must be a moral person qualitatively distinct from the individual persons which it comprises.*"

He does not mean that society must be so imagined, or symbolized, but that it must be so conceived *literatim et verbatim;* for he tells us that it is not only a necessary moral postulate, but a postulate *verified* by *experience.*[1] Nor does he in this statement permit any doubt as to the *immanent* and *composite* character of the social personality which he affirms. His contention is that the empirical human persons who compose an empirical human society at the same time compose an empirical person of a higher order. The italicized passage expresses succinctly and unambiguously the thesis which I propose to examine.

No one will, I think, be disposed to question the importance of this thesis. It is said that the constable of a small American town received six photographs taken in different positions, of a criminal wanted for burglary by the Chief of Police of a neighboring city. Fifteen days later the constable sent the following message to the Chief of Police: "Have arrested five of the men you want and expect to capture the sixth to-night." The difference between six persons and the six aspects of one person is therefore an important difference. It may be that while pursuing the human images of personality we have allowed the real offender, the composite personality, to escape. Certainly if there be social persons at large in the world, then it behooves us to take account of them. Perhaps they should be put in jail,—or perhaps, as is more commonly supposed, they should be worshiped. In any case we can not afford to ignore them, either in theory or in practice.

The question of the personality of society is not the question of the *unity* of society. There can be no question of its unity. A society exhibits unity of various types. It is, for example, a *class,* a *whole,*

[1] *Bulletin de la Société Française de Philos.,* 1906, pp. 128, 129 (italics mine).

an *individual,* and a *system.*[2] So much is unquestionable. But the alleged personality of society requires more than this. If society is both composed of persons and also a person in its own right, then it must be a *compound,* or a unity which duplicates its members.

There is no *a priori* reason why a collection which is a class, a whole, an individual, or a system, or which is all four, should be a compound. There are undeniable facts to the contrary. It does not occur to us to call an alphabet a compound or collective letter; or the row a collective book; or the army a collective soldier. Similarly, the pictures in an exhibition may compose a thousand square yards of canvas, but without composing a picture. Or two thousand Harvard students may be so arranged in position and costume as to compose a letter "H," though the unity of the student himself is neither literate nor aspirate.

There are, furthermore, certain formal or logical difficulties in the conception of society as a compound. It is impossible that a whole should possess the same character as its elements, when that character depends on their relative simplicity. A society of persons can not be personal, if personality is peculiarly characteristic of *one* unit of a type of which society requires at least *two.*

It is impossible, *a fortiori,* that a society should be one of its own component persons. This is the so-called "vicious-circle" principle.[3] The American mind can not be one of those "best minds" that make up the Republican Party. The mind of President Coolidge's Cabinet can not, like the Secretary of State, attend as a member at the conference table. In conceiving society as a compound we must, therefore, be careful to avoid these offences against logic.

Nor, on the other hand, must we fall into a mere redundancy. A forest, being composed of trees, may be said to be arboreal; a pack of dogs is canine; and a society of persons, personal. This means nothing more than that a society of persons is a society of persons. Again, as a collection may be described in terms of its members, so the members may be described in terms of the collection. Similarly, as we may speak of an arboreal forest, so we may speak of a forestal tree; and mean nothing more than a tree that grows in a forest. As we may speak of a personal society, so we may speak of a social person, and mean nothing more than a person that grows in a society. Or we may mean to emphasize the peculiar *kind* of per-

[2] *Cf.* my articles, "Is there a Social Mind?" *Amer. Jour. of Sociol.,* Vol. XXVII, 1922. Occasional sentences from these articles are reprinted in the present paper.

[3] It is formulated by Whitehead and Russell as follows: "Whatever involves all of a collection must not be one of the collection." *Principia Mathematica,* 1910, p. 40.

sonality exhibited by members of a society and speak of it as "social personality," or, more simply, but more ambiguously, as the "social person."

But there is a sense in which the question "Is a society of persons a person?" is neither illogical nor redundant. If compounds are conceivable at all, it is proper to raise the question in the case of society. A machine can be composed of machines; and, if we are to believe the biologists, an organism can be composed of organisms. A group of men may be composed of groups of men, and an organization, of organizations. This is possible because these terms "machine," "organism," "group," and "organization," signify general modes of unity that may be duplicated on ascending levels of complexity. Society *is*, therefore, a compound in so far as both society and its component men are conceived as machines, organisms, groups, or organizations. In so far, on the other hand, as society and its component men are conceived in terms of their biological classification, society is *not* a compound.

If, then, we ask whether society is a person, what we mean to ask is whether personality is a special characteristic of man, identified with his unique position in the hierarchy of living things, or a formal characteristic that can be transposed from one level to another. Men lie somewhere in the scale of complexity between protozoa and nations. They comprise cells and they compose societies. Certain of their properties, such as laughing and climbing trees, are functions of this intermediate phase of complexity. Cells are too simple and societies too complex to laugh or to climb trees. Are cells too simple and societies too complex to be persons? Or is personality something like mechanism, organism, collectivity, and organization, that can exist both in the parts which a man comprises and in a whole which men compose?

There are two conceptions of personality which would answer our questions summarily and unmistakably. If a person is a collection of states, an aggregate of mind stuff, or a "stream" of consciousness, then it is evident that persons can be compounded by the simple process of addition. A social person would be the sum of the states or mind stuff, or a confluence of the conscious streams, of its members. James, who originated the expression "stream of consciousness," has, in fact, himself suggested that an individual mind is only a sort of trickle from a wider "sea" of consciousness finding an outlet through the body.[4]

On the other hand, if a person be defined in terms of its exclusive-

[4] "We need only suppose the continuity of our consciousness with a mother sea, to allow for exceptional waves occasionally pouring over the dam." (*Human Immortality*, 1898, p. 27.)

ness, then it can not be compounded, or be included in another person, without contradiction. This view is maintained by those who insist upon the essential privacy of the mind, or the peculiar internality which renders it accessible only to introspection. On such a theory a social person which was excluded from the privacy of human minds would not contain them; while if it did invade their privacy both it and they, having lost their privacy, would cease to be persons.

I dismiss these two views: the first, because it so evidently fails to provide for the unity of personality; the second, because even if it were acceptable as a view of personality, it would in any case serve only to confirm the conclusion which will presently be formulated.

There remain two further views which seem to leave our question open. Both of these views would define personality in terms of organization, and suggest the possibility that as a human person is organized out of simpler constituents, so a social person may be organized out of constituent personalities—more complexly, but after the same fashion.

According to the first of these views, personality is the systematic unity of experience, or the organization of objects into a world. I dismiss this view because it appears to eliminate our question altogether. The scientific and logical motives which impel us to affirm that there is only one organized world of objects, would on this view impel us to affirm that there is only one Person, who is *neither* man nor society.

There remains the view that a person is an organization not among the objects of mind, but among its *acts*. We may, in order to avoid unnecessary argument, agree loosely that acts of mind are acts of knowledge or acts of will. My thesis may then be briefly stated as follows: There are two ways in which acts of mind are integrated. They are integrated directly as acts of one agent, or indirectly through their objects. The former is the type of integration that is characteristic of personality and allied forms of mind; the latter is characteristic of society. In other words, society is an integration of mind, and a genuinely psychological unity, but it is not that specific mode of integration or unity which constitutes a person.

So far, at least, as observable, the first or personal type of integration is limited to such acts as are embodied in the same physical organism, and so connected by one continuous nervous system; while the second or social type of organization obtains among acts embodied in different and neurally discontinuous organisms. We may speak of these respectively as intra-organic and inter-organic integration.

Intra-organic integration is most simply represented by habit and memory. One organism does not acquire habits as a result of the actions of another, nor does it recollect another's past. Similarly, one organism does not learn by the trials and errors of another organism, but profits in this sense only by its own experience. Although the underlying mechanisms are more obscure, it will, I think, be admitted that the several acts of one cognitive process must likewise be embodied in the same organism. A judgment is a synthesis, but one organism can not enact the subject and another the predicate. Nor can a process of inference be constituted by a division of the premises and conclusion among three organisms. In the verification or correction of hypothesis the evidence and the expectation must meet in one organism, otherwise they neither collide nor concur.

The same is true of interest or purpose. An act is interested when it is performed because of what is expected of it. The term "because" here signifies an internal and not an external nexus. I can not *in this sense* act because of what you expect of my act, unless indirectly through duplicating your expectation or making it the object of an expectation of my own.

The final case of intra-organic integration, to which I wish to call special attention, is that in which one interested activity is subsumed under another, so as to generate a hierarchy of purposes. If I want this because I want that, if I seek money because I covet power, or aspire to virtue for the love of God, the subject of both interests must be the same organism, and the control exerted by the one over the other is of the type which a single nervous system subserves. This relation, which I shall describe as the mediation of one interest by another, or the *intermediation* of interests, constitutes, I think, that which best deserves the name of personality, and can be shown to underlie the traditional prerogatives of personality, such as rationality, freedom, responsibility, and happiness.

Of inter-organic, as distinguished from organic, integration there are at least two types, describable as *community* and *mutuality* of interest. The former is the case of two interests with a common object, the latter the case of two interests which are stimuli or objects to one another. These modes of integration are present also in personality, where they are combined with the principle of intermediation. But in their purity, or independence of this mediating relation, they are peculiarly characteristic of what are called social relations.

Let us suppose a benevolent father to be indulging his son's propensity to play, and let us suppose the child to be sophisticated enough to realize the ulterior benefits of exercise. The son's play-interest mediates his ambition, which is a personal integration. The

father's parsimony is overruled by his parental love, which is also a personal integration. But the play-interest and parental love do not in this case compose a person. There is no playing for the sake of love, or loving for the sake of play. The play-interest of the son is, however, the object of the father's parental love, and the two, therefore, constitute a social relation of persons, though they do not constitute a person.

The intermediation of interests which constitute personality is evidently a matter of degree, and the term "person" may legitimately be used to signify either the possibility of such intermediation through the presence of the requisite structures, or its notable achievement in what is described as "strength of character" or "unity of purpose." The term "personality" may, in other words, be used to signify either the capacity or its realization.

Our conclusion can be stated in two ways. If one prefers to use the term "personality" in a sense broad enough to include all integrations of interest, or all organizations of which both the terms and the combining relations are acts of mind, then societies may be regarded as persons. But in that case there would still remain an absolute difference of principle between the kind of personality in which acts of interest directly mediate one another, and the kind in which they intersect in their objects. It seems to me to be in closer accord with verbal usage and with the traditional meaning of the concept of personality to reserve it for the first of these forms, in which the integration is effected in the act or at the source.

We conclude, therefore, that personality and its prerogatives are peculiar to organic individuals of the human species, or to units of life having the peculiar structural and functional organization characteristic of organisms endowed with a highly developed central nervous system. Personality consists in a type of integration or interdependence of interests such as occurs when the interests in question are dispositions or activities of one physical organism. It is a peculiar autonomous system, or field of control, such as in the physical man is enveloped by one continuous skin and supplied by one continuous nervous tract having a continuous history.

While persons can not compose a person, it is still possible that human individuals should by inter-organic connections be integrated into groups or societies possessing wholeness, individuality, and systematic unity, and compounded in respects other than that of personality. What happens to personality, in such cases? There are three possibilities.

In the first place, *impersonal groups may be constituted of impersonal members.* Even when men are persons in the sense of possessing the structural organization that renders personality possible,

personality may be as yet unachieved; or personality may be momentarily dissolved; or different personalities may interpenetrate upon their subpersonal levels. In all these cases the *elements* of personalities may enter into social or objective relations into which the personalities as such do not enter. There is then, in the case of any given element, a rivalry of control between the associated activities within the same personality, and the elements of foreign personalities which function as stimulus or environment. Judged by the standard of personality, groups of this type, such as crowds, are primitive, suggestible, or degenerate. It is recognized that such unities tend to prevent or to supersede the personal unities into which the same activities are qualified to enter; or that the composition of such social unities requires the decomposition or dissociation of personal unities.

The second possibility is a *personal* society *composed of non-persons.* If we are to accept the conclusion argued above that the seat of personality is the neurally-centralized organism, it follows that a society of this type is possible only in so far as one of its members assumes the rôle of personality for all, the others being reduced to the status of its objects or instrumentalities. Society is thus personalized by absorption or annexation. In other words, the members of a society can be embraced within one person only in so far as all members save one are subordinated to the purpose which that one has *for* them. Their interests will not be integrated by their own direct inter-mediation and inter-dependence, but indirectly or vicariously, through the judgments which the head passes upon them, or the uses he has for them, or the interests he takes in them. The consummation of such a type of integration is represented by a centralized and autocratic society, in which one human individual is literally justified in saying "l'état, c'est moi," or in which he unites in his own person the prerogatives which Cardinal Manning assigned to the Pope as the head, the heart, the mind, and the tongue of the Catholic Church.

The third possibility is *an impersonal society composed of persons.* Such a whole may be loosely integrated or highly consolidated, but in any case its *personal* control will be divided among its members. It may be a collection, a conflict, or a federation of persons, but in any case it will not be a person. This does not mean that social relations are not favorable to personality, or that they may not be a necessary condition of its development, but only that in so far as the personalities of constituent men are promoted or conserved it prevents these social relations themselves from assuming the form of an integral person.

The second and third possibilities taken together yield the general principle that the *personality of the whole is inversely proportional*

to that of the members. The development of personality in the group implies the prevention or loss of personality in all members but one; while the development of personality in the members implies its prevention or loss in the whole. [5]

Hesitation or reluctance to accept this conclusion may be ascribed to two causes: In the first place, there is a tendency to suppose that a whole composed of men must exhibit the same advance in respect of personality that a man exhibits in comparison with his members. This is, however, neither necessary nor, as it appears, in accordance with fact. It is not necessary, because if persons can be composed of non-persons, they can equally well compose non-persons. As a matter of fact, personality characterizes preëminently that intermediate stage of organization which lies half way between a human interest and a human society. Personality ascends as we pass from the part to the whole of a man, and declines as we pass from a man to the more inclusive whole of society.

In the second place, there is a disposition to credit any whole with the qualities and prerogatives of its members, or to overlook the differences between its integral properties and those which it includes. This is to commit the elementary logical fallacy of composition. An army includes the soldiers, but it does not possess in its own right the characters which its members possess. It includes soldiers who write letters to their mothers, but *it* does not write letters to *its* mother. Similarly, a society of persons is to be credited with personality by inclusion or distributively, but not integrally.

One is readily confused by the spell of such expressions as "the national life" or "humanity." How infinitely richer, it may be objected, is the national life than that of any of its members? But one who voices such an objection betrays the fact that he is thinking of the American nation, for example, in terms of everything that is American instead of just those things which are national. Only a very small fraction of the things which the American nation includes can be said to be done by the nation as such. The nation does, perhaps, own the public domain, or claim cable-rights on the island of Yap, or return to a state of normalcy; in any case, the

[5] Precisely the same dilemma holds in the case of the metaphysical hypothesis known as the "Absolute." If the Absolute is to be indeed a person, preëminently qualified as such, then it can be so only at the expense of the personality of men. The Absolute must be the *only* person. If, on the other hand, the personality of individual men is to be conserved, then the Absolute, *judged by the standard of personality,* must be of a relatively low, if not pathological, variety. *Cf.* F. C. S. Schiller, "Idealism and the Dissociation of Personality," this JOURNAL, Vol. III, 1906, and "The Madness of the Absolute," *ibid.*, Vol. IV, 1907; and James, "The Mad Absolute," in *Collected Essays and Reviews,* 1920.

nation does not seek office, or beat its wife, or study Einstein, though these are all things that are done by members of the American nation. If then we deny of a society as a whole the quality and prerogatives of personality, or anything else that is worthy and admirable, this does not in the least imply that they do not belong to its members, or that as the aggregate of its members it does not contain more that is worthy and admirable than does any one of them individually.

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BOOK REVIEWS

The Elements of Scientific Psychology. KNIGHT DUNLAP. St. Louis: C. V. Mosby Co. 1922. 368 pp.

It is a puzzle to decide where to place—and thus how to review—Professor Dunlap's *Elements of Scientific Psychology.* There are two ideal extremes in the writing of text-books. On the one hand there is the "systematic" text and on the other the elementary "handbook." The systematic text lays down its premises as to the subject-matter of psychology and endeavors to drive through the entire range of psychology without becoming false to the premises. The success of the endeavor represents a practical justification of the premises. Moreover, the systematic writer must balance his book; he must write at least as much about emotion as he does about visual sensation, because emotion is generally conceded to be as important mentally as is vision, even though very much less is known about it. This necessity for writing in the absence of scientific information justifies the introduction of dogmatic assertion wherever scientific fact is lacking. The test of excellence in the systematic text is thus its internal consistency and its avoidance of contradiction with observed fact. The handbook, on the other hand, seeks only to present what is scientifically established. Its chapters are not balanced because scientific discovery is not balanced. Where experiment has left gaps, it remains silent. It is not even internally consistent: where different experiments have implied incompatible views the report of both prevents systematic unity. The test of the handbook is extrinsic—its accuracy and its adequacy to the established body of fact.

Dunlap seems to me to be saying that he is writing an elementary handbook, while he is actually attempting a system. He reacts against the older psychology: in "the modern science of psychology, it is necessary to depart definitely from traditional formulæ and traditional conceptions in so far as these formulæ and conceptions no

longer represent the facts with which psychology has to deal." "No one thinks today of asking aid in any problem of real life from the psychology, however named, which deals with a peculiar world of psychic objects, by the introspective method, or by any of its later substitutes" (p. 7). This is the usual form of the protest against the systematic psychology, the usual argument for the handbook. Primarily, Dunlap assures us, psychology must be experimental (pp. 15 ff.); secondarily it must be catholic. It is introspective (pp. 27 ff.), genetic (pp. 35 f.), functional in the American sense (p. 21), functional in the German sense (pp. 24 ff.) and behavioristic (pp. 21 f., 26 f., 29 f.). In so far as these methods are experimental they yield admissible psychological data. Speculation is unscientific and inadmissible (p. 32) and is one of the faults of the traditional psychology. We must avoid the "Anglo-German" psychology (pp. 38, 238), an unfamiliar phrase which must intend the traditional systematic mode of presentation: what else have Stumpf and Stout, Wundt and Ward, in common? In these ways Dunlap seems to me to represent the reaction of the times against system and toward experimental finding.

But he writes, nevertheless, a system. The book is balanced, like a system. The first half deals with sensation, about which so much is known, and the second half with reaction, perception, thought, and affection, about which there is so much less, that is experimental, to say. Thus he is necessarily led into dogmatism even while repudiating it. He can pass rather lightly over the numerous classifications of the instincts as serving simply "the logical purposes of the classifier" (p. 218 f.), and yet propose and elaborate in all seriousness a list of desires (p. 324). There is a great deal from Chapter VIII on (*cf.* esp. Chap. XV) that is as much *aus dem grünen Tisch* as was Wundt's tridimensional theory of feeling. The book, therefore, seems to me to represent a strange defense of the philosophical tradition in psychology: with the best will in the world Dunlap is unable to get away from system and from speculation and yet write a psychology.

In the first chapter Dunlap tells us what psychology is about. It is about "the conscious adjustment of an organism to the environment," a "total situation," which "is best designated by the term experience" (p. 23 f.). In such a situation there are four factors to be taken into account: (1) the *I* or *ego,* which is conscious; (2) the content, the something of which we are conscious; (3) consciousness or awareness of the content; and (4) bodily or organic activity. The *ego* (which is not to be confused with the self, p. 340) and consciousness are not observable, but "are nevertheless empirical data, in that they are given in experience itself and are not infer-

ences." Their inclusion leads to a separation of psychology from physical science, which deals only with the contents which are observable. One looks to the rest of the book for light on the distinction between "observable" and "given in experience," but the *I* or *ego* is not again mentioned explicitly and "consciousness" comes in rather casually. Of course the book, for all that it deals with contents, is not a physics; consciousness and the *ego* must be present implicitly; but if Dunlap is writing a system he should have been explicit, or, if he is confining himself to scientific data, he should keep to the observable.

Dunlap admits introspection as a method, but he is not fond of it (pp. 27 f., 33 f., 323, 333). Scientifically he has to accept it where it has led to verified fact, and presumably he does not care for Watson's solution of the dilemma by calling introspection "explicit verbal behavior." Dunlap's course seems to me to be preferable to Watson's, but it would be still better if he took the pains to understand more sympathetically the method of introspection before he condemns it and rejects so many of its findings. "The introspectionalist," Dunlap observes, "tends to attempt the observation of all possible content occurring during the period of observation, instead of limiting himself narrowly to definite details which the observer may plan in advance to observe" (p. 34, *cf.* p. 333), and he cites as "the clearest statement of the introspectionalist assumptions" an article of mine on the stimulus-error. The kind of introspection which Dunlap puts forth as the type is the kind representative of the laboratories of Külpe [1] and Baird. I do not know whether anyone holds to it now unless it be Wheeler.[2] Certainly not Titchener, though Titchener is often thought of as an "introspectionalist." My cited paper [3] puts forth a view directly opposed to the "complete introspections" of the Bairdian tradition and presents a notion of the stimulus-error which I can hardly believe Titchener would accept. Yet Dunlap cites it as the "clearest statement."

The problem of the stimulus-error itself Dunlap disposes of easily enough. The "stimuli are by their nature unobservable"; there is no problem (pp. 27, 43, 63). This might all be very well if observation were equated to the mere having of experience. In such a case one can say, like Fullerton and Cattell, that the stimuli are physical data and thus identical with the mental data; or one can say, like Dunlap, that the stimuli are "mathematical expressions and

[1] N. Ach, *Ueber die Willenstätigkeit und das Denken*, 1905.

[2] R. H. Wheeler, *Univ. Ore. Publ.*, 1920, Vol. 1, No. 2; *Am. J. Psychol.*, 1923, 34, 185–202; see also below.

[3] E. G. Boring, *Am. J. Psychol.*, 1921, 32, 449–471.

nothing more'' and therefore, being inferential, can not be observed. Either way avoids the problem, provided that observation and experience are equated, but we have seen that Dunlap distinguishes between these two. When observation becomes more inclusive than the having of experience, it is almost bound to become the observation of objects (as indeed Dunlap says it is, p. 34), and, though physical and psychical content may be the same, it is plain that, at the complex level of the object, they must be differentiated.

In view of his tendency to identify the psychical and the physical as content it is hard to understand why Dunlap makes adult human psychology the basis for child psychology, animal psychology, and pathological psychology. ''The possibility of Child Psychology (and of Animal Psychology) lies in the interpretation of the behavior of the child (or animal) as conscious behavior, when the observable part of the behavior is the same as that which is observed in the adult, and which is assumed to be conscious under similar conditions'' (p. 16). This is the old argument from analogy and it presupposes a distinction between physical and psychical objects. The one thing for psychology that the normal human adult can do better than the amœba, the rat, the infant, and the imbecile is to introspect, and the fact that Dunlap records that these fields of study have actually had to wait upon the advance of normal psychology for their own advance would seem—did not Dunlap elsewhere give a different view—to be a feather in the cap of introspection.

The premises are then not wholly clear, but we have enough to enable us to go on. After the introduction six chapters deal with sense perception.

Sense data are ordinarily complex, but may be resolved ultimately by analysis into ''simple data'' which Dunlap calls ''sentienda'' (p. 37 f.). Examples of sentienda are red, blue, cold, pressure, sweet, and sour. Every sentiendum possesses the intrinsic characters of quality, intensity, extensity, and duration, and the extrinsic characters of position in time and position in space (p. 39). The last five of these six characters can apparently furnish the basis for series of sentienda which become the objects of measurement, whereas quality seems always to stand alone. There are no qualitative continua at the level of the sentiendum (*cf.* p. 114 f., 129). Red and blue are sentienda and the purples are a series of fusions of various intensities of the two. Sweet and bitter are sentienda and the bitter-sweets are fusions. In smell and on the skin there is no problem of continua (Dunlap does not take Henning[4] seriously). In tone Dunlap asserts his own theory wherein the pitch becomes a series of extensities. The discreteness of quality is a very pretty scheme

[4] H. Henning, *Der Geruch*, 1916.

systematically and it is easier to doubt it than to disprove it. It would fall if the purples and oranges were simple and not fusions, but on this point "introspectionalists," as Dunlap complains, are not in agreement. It would fall if Henning were right about the tastes and smells, but Henning has yet to be verified in detail. It would fall if Dunlap were wrong about the tones (pp. 80 ff.) and I think the recent work on volume and on localization tends to show that he is wrong, but the matter has yet to be decided.

There is, however, a specific difficulty about the visual sentienda. There are three visual sentienda: red, blue, and chlor (greenish yellow). Here Dunlap would seem to desert the laboratory for the armchair. There is pretty definite agreement about the nature of *Hauptrot, Hauptblau,* and *Hauptgleb,* both as to their elementariness and, allowing for individual differences, their correlation with the stimulus. *Hauptgrün* is not in the same status, though its wave-length can be placed at about 505 $\mu\mu$: Brentano and Holt disagree with Ebbinghaus and Titchener. But in what sense is chlor elementary, chlor which has not as yet even been well enough established to have its wave-length determined? Possibly because it mixes with red and blue to give all the colors in fair saturations. Dunlap does not tell us, and in dogmatizing about it I think he violates his own code.

There is also the question of white. White for Dunlap is an observable datum, a fusion of red, blue, and chlor (p. 38). He admits in notes that it may be possibly another elementary sentiendum (p. 56) requiring the positing of a fourth physiological process (p. 80), but he holds that the complexity of white is "the current form of the color theory" (*v.* also p. 129 f.). This is a reversion to Helmholtz and, as in the establishment of the elementariness of chlor, the issue is the validity of introspection. There is no doubt that white is not introspectively red and blue and chlor or any other three or two colors. If it is not complex, then the analysis, which yields the sentienda, must be by reference to the "unobservable" stimuli. On the other hand, it is only by way of introspection that the taste of potassium iodide can be resolved into salt and bitter; there is no chemistry of taste at the present time which would assist in such an analysis. Rather it seems here that Dunlap has fallen into a stimulus-error of the grosser kind. He has confused unobservable mathematical expressions (stimuli) with sense data, just as the observer may do in the laboratory if the proper precautions are not taken.

Following the discussion of sentienda Dunlap gives a list of fifteen modal senses. Here the basis for modal differentiation is not clear. Pressure and touch are distinguished as different modes, whereas salt and bitter are combined under taste. He also gives various sensory terms for the information of the student, placing

those "not in wide usage" in parentheses. It is not surprising to find parentheses about such words as "opsis," "thalposis," "gargalesthesis," and the like. I should also place them about "osphresis," "anaphia," "baresthesis," and "palmesthesis," which can scarcely be said to be in wide usage.

The sections on taste and smell are orthodox, although Henning, misstyled a physiologist, recevies rather less than his due. His psychological and chemical theories of both taste and smell are ignored except for a mention of the *Hauptgerüche,* although a note is devoted to Ramsay and Haycraft on the chemistry of smell.

Vision is treated excellently with an appreciative regard for the importance of observational findings. It is only where the systematic interest is unsatisfied by observed fact that Dunlap becomes dogmatic and thus unsatisfactory. The establishment of chlor as an elementary sentiendum is such an instance. Another case is the solution of the moot problem of visual intensity. Both saturation and brightness are held to be intensity; the word is used at least in both senses (as on p. 60). The minimal intensity in the black-white continuum is at black, not a gray. Such a position needs defense since systematic opinion and some slight experimentation point at present to another view.

There are some minor errors of fact. It is not true of colors that feeble stimulation increases sensitivity (p. 70). Color contrast certainly occurs immediately, not "soon" (p. 72). In general, the exposition is accurate, though the accounts of color-mixture, and especially of yellow-blue mixture, are so brief as to be obscure, and would better have been omitted (p. 74).

The paragraphs on audition suffer scientifically from Dunlap's theory that pitch is extension. There is not the observational ground for the acceptance of this theory at present. As a systematic experiment it is, however, very pretty, and Dunlap carries it consistently through the book (*cf., e.g.,* pp. 91 ff. with 100, 120). His devotion to the theory is evident when we find him characterizing the "palmesthetic" perceptions that depend on felt vibration-rates as pitches and therefore extensities (p. 100)—another example of a systematic stimulus-error.

The treatment of beats and difference tones is not a successful avoidance of the dilemma of hearing three tones for a complex wave that is analyzable, mathematically or physically, into only two (p. 89). Inspection of a graphic representation of such a compound wave gives only a single periodicity; analysis gives two others but not the first, since it is an analysis of the first. The beat-periodicity is explicit, the periods of the generators mathematically and physically implicit; but the dilemma that the ear eats its cake and has it

too is not to be resolved by the logical *tour de force* of identifying mutually exclusive explicit and implicit periods. What we need is more knowledge of how difference tones occur physically. Nor is it demonstrably true that one tone beats with a second tone that differs slightly from the octave of the first (p. 89); it is more likely that this phenomenon occurs only in notes where the second partial of the first tone is present.

The discussion of harmony is obscure (p. 90). Dunlap relates "harmoniousness" to the coincidence of the partials of the pair of notes, but records an exception in the case of the fourth. The order of harmoniousness should be on this theory, the octave, the fifth, the fourth, and the third, whereas the fourth, Dunlap asserts, is less harmonious than the third. If by "harmoniousness" he means either tonal fusion or the history of the acceptance of these intervals in music, then it is not true that the fourth is worse than the third. If he means pleasantness, then the third is better than the octave and the fifth to the educated ear.[5] One would expect him to mean fusion, since otherwise it is hard to understand the omission of this topic from a book that goes into such detail in describing the physical relation of the scales (pp. 86 ff.).

It is also surprising to find no discussion at all of the problems of tonal volume (as distinguished from pitch), of vocality, and of octave similarity in view of the great amount of experimental work on these problems in the last decade. Dunlap should not reject this work as unverifiable introspection; the surprising thing about all the experiments on vocality, from Helmholtz to Köhler, is their agreement.

There is a separate chapter for the somatic and visceral senses. Here the fundamental classification is into the epicritic and protopathic groups of Head and his co-workers,[6] who are given the credit

[6] H. Head, *Studies in Neurology*, 1920, esp. I, 225–329; II, 822 ff.

of having cleared up the serious confusion of earlier work. Being a party to this quarrel, I may not dissent from Dunlap's dictum. I may, nevertheless, point out one misinterpretation of Head. Dunlap has considerable to say about "protopathic pressure" (p. 95). One wonders what it is. Head found it necessary to distinguish primarily between a deep system (pressure and pain) and the dermal system, which secondarily he divided into the protopathic and epicritic systems. "Pressure," so named, is epicritic. In protopathic sensibility he found a "tactile sensibility of the hairs," but he does not call it pressure and he does not tell enough about it to eliminate any "serious confusions" of the "early investigations." Dunlap must be calling deep pressure "protopathic," for he speaks of it as in hairless regions such as the glans (p. 95), assumes that it is elicited by

[5] *Cf.* C. C. Pratt, *Am. J. Psychol.*, 1921, 32, 490–515.

a more violent stimulus (p. 117), which is just what Head denies for the protopathic system, and obviously believes in the sensibility of the subcutaneous tissues (pp. 100, 101).

Dunlap ascribes to the skin a greater number of qualities than has ever been scientifically demonstrated, although one can not be too sure of his meaning, because he substitutes here the undefined term "quality" for his more rigorous word "sentiendum" (though *cf.* his promise to be rigorous, p. 33). Besides the orthodox warmth, cold, and pain, one has touch, pressure, and tickle (p. 94). Murray[7] settled tickle introspectively, and Lombard[8] never published fully on his supposed tickle spots. If touch and pressure are the epicritic and deep (misnamed "protopathic") pressures, the distinction is primarily one of organ and not of quality. It is hard to say how many other qualities there are. Dunlap thinks that the "greater probability" is that there is a sexual quality which is *sui generis.* The entire tendency of the last decade seems to me to have been the other way and to show that different bodily functions do not come to consciousness by way of different qualities.

Adherence to Head's theory makes Dunlap say that the localization of warmth, cold, and touch is not "punctuate" with respect to the skin and that the localization of pain is (p. 96). This statement is exactly the opposite of the facts. "Careful technique is needed in conducting research upon the dermal senses," it is true; but careful technique is just what Head and Rivers did not have and what von Frey and Goldscheider did have. Even with it the experimental results are baffling. This much, however, can be said: of the four modes in question the least certain of punctuate localization is pain. Pain has even been called "common sensation" because its spots could not be definitely established. Dunlap's rejection of most of the experiments upon the skin as influenced by "suggestion effects" is gratuitous superiority; and, it may be added, if he must appeal to suggestion here, it would be more scientific to refer to work like Holland's[9] than to present the "electric effect of a lock of a girl's hair brushing lightly" against a man's temple (pp. 96 f.). Head's theory also makes Dunlap state that there is a terminal intensity for epicritic warmth, a temperature above which no warmth is felt (p. 104). Some one ought to try this experiment on a bit of skin sensitive to epicritic warmth and lying between the propathic warm spots; but until the experiment is tried it is dangerous to be dogmatic.

With the same dogmatism Dunlap rejects the quality of heat as conditioned upon simultaneous cold and warm stimulation. Any

[7] E. Murray, *Am. J. Psychol.*, 1908, 19, 389–344.
[8] W. P. Lombard, *Am. J. Physiol.*, 1913, 31, xv.
[9] R. T. Holland, *J. Exper. Psychol.*, 1920, 3, 302–318.

Sophomore can be convinced of the amazing unique quality of heat in five minutes by the use of Cutolo's grill,[10] and yet Dunlap says that "the grounds for this theory have been swept away by Head's work" (p. 99). Heat never was a theory based upon a ground; it is an unexplained fact, which, showing how the skin tends to function as a whole, supports rather than challenges Head's theory. What Head did was to sweep away the fact by using the word in another and ambiguous sense.

Under this same bias Dunlap doubts the existence of paradoxical cold (p. 99). Paradoxical warmth is perhaps open to question since Rubin and Goldscheider are not easily verified, but paradoxical cold is easily demonstrated although not so easily as heat.

The rest of the discussion of the skin and viscera is orthodox. There are only a few minor inaccuracies. Physiological zero on the skin is about 33°, skin-temperature, and not 37°, which is normally sensed as warm (p. 98). The stomach is sensitive to warmth from a thermal stimulus (Carlson[11] and myself[12]); there is no proof that hot liquid in the stomach stimulates thermally only the peritoneum (p. 106).

In a chapter concerning details of sensory characters we are told that sense data are relative in terms of their attributes. This is a satisfactory solution of the problem of the sensory continuum, although most psychologists would include quality among the continua. Dunlap can not because quality is for him discrete.

Thus one comes to measurement and the threshold. For the latter Dunlap introduces a new nomenclature: I. S. T. ("intensity stimulus threshold"), P. S. T. ("protensity stimulus threshold"), Q. S. T., I. D. T. ("intensity difference threshold"), *etc.* (pp. 113 ff.). This seems to me unnecessary propaganda. There are already good symbols which psychologists use, and the student has a right to know them. Dunlap rejects them as "needlessly ponderous" (p. 132).

The threshold is represented as "the center of the zone within which the sentiendum [or relation] is neither perceptible nor imperceptible" (p. 114). There is, of course, no such zone. In the first place this statement implies a "constancy hypothesis" of the relation of sensation to stimulus to which no one any longer holds. Dunlap denies the "constancy hypothesis" in one place (p. 113) but seems to imply it elsewhere in the doctrine of imperceptible differences between sentienda (pp. 121 ff.), which is really a doctrine of unconscious contents. In the second place the statement does

[10] F. Cutolo, *Am. J. Psychol.*, 1918, 29, 442–448; J. H. Alston, *ibid.*, 1920, 31, 302–312.

[11] A. J. Carlson, *The Control of Hunger in Health and Disease*, 1916, 106 ff.

[12] Boring, *Am. J. Psychol.*, 1915, 26, 485–494.

not make sense. If the sentiendum is neither perceptible nor imperceptible within this zone, what in the world is it? A unique experience? What Dunlap should say is that the sentiendum [or relation] is sometimes perceptible and sometimes imperceptible, and then he could, if he wished, introduce the notion of the psychometric function and in doing so avoid any implication of the constancy hypothesis whatsoever.

There is here (pp. 119 f.) a short section on movement, which excites two disappointments. One is that nowhere (neither here nor on pp. 282 ff.) does Dunlap discuss seen movement, which is one of the most vital problems of the last decade (Wertheimer, Korte, Koffka, Dimmick, [13] *etc.*). The other is that his extensive theory of hearing leads him to consider that auditory movement is change of pitch, and thus to slight the interesting problem of the movement of the tonal "phantom" (though *cf.* pp. 278 f.).

Dunlap devotes two chapters to sensory measurement. The second chapter (pp. 131–155) is an excellent brief review of a great deal of quantitative sensory work from the scientific empirical point of view where Dunlap is at his best. It is too technical for the instructional level which the greater part of the book sets, but it is plain that Dunlap is in general at home in this field.

His first point with regard to sensory measurement is, however, systematic. Relations, we are told, in addition to the sentienda constitute a great group of "objects of consciousness" (pp. 121 ff.). This view is not new or undisputed, but it seems to me to be the best way of handling a difficult matter from Dunlap's point of view. The obvious thing about the judgment of a sense-distance is that it is the distance and not the limiting sentienda that are observed, and further that little can at present be said about the distance except to refer it to the sentienda.

Dunlap gives a list of relations and regrets that so little work has been done upon them (p. 122). Of these relations difference, identity, and intermediacy are quite convincing. Magnitude, however, is less so. The long psychological controversy about magnitude ended practically in reducing it to identity and difference (*cf.* Dunlap himself on the relativity of sense data, p. 112). Causality is the hardest relation to accept. Causes are the results of interpretation, and their report in immediate observation generally marks the observation as slip-shod. They should be for Dunlap at the non-observational level where he puts the mathematical expressions that are stimuli.

The continuity of a sensory series is demonstrable, but not as

[13] F. L. Dimmick, *Am. J. Psychol.*, 1920, 31, 317–332; and references there cited.

Dunlap tries to demonstrate it (p. 122). What Dunlap says is: let p_1 and p_3 be just perceptibly different, and insert p_2 between them. Since p_1 and p_3 are just perceptibly different, p_2, in between them, can not be perceptibly different from either. But p_2 can not equal p_3 or it would be perceptibly different from p_1; nor can p_2 equal p_1 or it would be perceptibly different from p_3. Therefore p_2 is neither p_1 nor p_3 and hence is a new sentiendum. This is not good scientific logic. We observe $p_1 = p_2$ and $p_2 = p_3$ and $p_1 \neq p_3$. The third observation is incompatible with the first two, and there is no reason for calling the one more valid than the others. The thing to do, when an absurdity is demonstrated, is to reject the assumptions; and the fallacious premise in this case is the assumption of a fixed relation between stimulus and sentiendum, the "constancy hypothesis."

In the section on Weber's law (pp. 125 ff.) I dissent thrice. In the first place it is not true that Fechner discovered Weber's law (if one distinguishes Weber's law from Fechner's formula, as Dunlap does), nor is it true that Weber used only "tactual intensity difference thresholds." Besides the skin Weber based his law on the muscle sense, tones, and visual length.[14] In the second place it is not true, so far as I can find out, that the law is negated by experiments on visual intensity because the visual stimulus is really measured in a psychological scale so that the stimulus would already be proportional to log R and the apparent demonstration of the law would mean that $S = K \log (K' \log R)$ (at least only thus can I understand Dunlap, p. 127). In the classic experiments and in the more recent ones which seem to approximate Weber's law, the stimulus is measured in units which are either energetic or can, like the candle, be converted into energy by multiplying by a constant.[15] In the third place it is not correct, nor helpful to the student, to say that "thresholds are not properly expressed" as absolute thresholds (p. 125). The ignoring of the absolute values for the relative has led to the difficulty that Dunlap himself points out later (p. 128).

Absolute pitch, it seems to me, Dunlap dismisses too easily. A few persons can distinguish sharps and flats, more can not. Baird's work[16] is in point, and it is incorrect in these cases to say that facts are "not clear" (p. 151). That these judgments are relative seems improbable when the observer is left in ignorance of the correctness of his first judgments. In such a case he would be most often consistently all wrong.

[14] *Cf.* E. B. Titchener, *Experimental Psychology*, 1905, II, ii, xiii–xx.

[15] *Cf.* L. T. Troland, *Bull. Nat. Res. Counc.*, 1922, 5, 80–84; and references there cited.

[16] J. W. Baird, *Studies in Psychology, Titchener Commemorative Volume*, 1917, 43–78.

Besides these points there are several minor objections to this otherwise excellent treatment. For instance, the account of the determination of an "IST" (p. 132) is incorrect. The method of constant stimuli makes it possible, by multiplying cases, to measure more accurately than the unit of increment of the stimulus. It seems a mistake to use "v. s." for "vibrations per second" when on any French fork that the student gets hold of this abbreviation means *vibrations simples* (p. 149). The correct physical usage would be "v/s" or vibr./sec.," not "v. s." It is hardly scientific to neglect tension (grm./mm.) as a unit for the dermal pressure stimulus, whatever the writer's personal convictions about von Frey's experiments may be (p. 151). Nor have tests shown in general that the calibration of a hair (which may be human as well as horse) varies greatly from time to time (p. 152). Finally, it is not fair to Müller, Urban,[17] and Fernberger to [18] say that "efficient technique" upon kinesthetic thresholds "remains to be developed" (p. 154). Think of what has been done on lifted weights, even though further improvements may remain to be made!

Except for a long chapter on elementary psycho-physiology, the second half of the book is much more speculative and much less empirical than the first, and need not detain us so long. Dunlap begins it with a chapter on thought content where he abandons (reluctantly? *cf.* p. 157 with pp. 167, 244, 301) the muscular theory of the image. There is one statement, however, that invites doubt: "the man who is distinctly defective in some sense will not be of the imaginative type of that sense" (p. 158; *cf.* p. 169). Wheeler's work with Cutsworth [19] seems to have disproved this otherwise plausible belief.

The chapter on instinct and habit is a long and important one (pp. 209–237). It begins: "Whenever receptors are stimulated, reactions occur. This is the general law to which there are no known exceptions." There are no known exceptions, of course, provided reaction be taken as the test of stimulation; all stimuli do not stimulate, and there must be some practical criterion. The quotation shows, however, the importance of the reaction in this system.

In the remainder of the chapter habit formation is explained by drainage along a common path; the secondary laws of learning

[17] F. M. Urban, *Application of Statistical Methods to the Problem of Psychophysics*, 1908; *etc.*

[18] S. W. Fernberger, *Psychol. Monog.*, 1919, No. 117; *J. Exper. Psychol.*, 1920, 3, 126–150; 1921, 4, 63–76; *etc.*

[19] R. H. Wheeler, *Univ. Ore. Publ.*, 1920, Vol. 1, No. 5; *Psychol. Rev.*, 1920, 27, 315–322; Wheeler and T. D. Cutsworth, *Am. J. Psychol.*, 1921, 32, 21–25; 1922, 33, 361–384; *Univ. Ore. Publ.*, 1922, Vol. 1, No. 10; *Psychol. Rev.*, 1922, 29, 212–220.

are expounded, much less fully than one would expect in an empirical psychology in view of the wealth of experimental material; and specific problems of learning are discussed with considerable emphasis upon the animal experiments.

In discussing the learning of the maze, he explains the elimination of the blind alleys by the use of Watson's explanation: the animal goes twice right to every once wrong (p. 237). McDougall has since shown the fallacy of this reasoning (although unfortunately he himself makes use of a faulty diagram in developing a sound argument).[20]

In the chapters upon perception and thinking (pp. 238–311) Dunlap makes the systematic setting that of a physiological behaviorism. One has, in these pages, to keep reminding himself that Dunlap does not regard himself as a behaviorist, that he formally admits introspection as a scientific method while rejecting most of its actual practice, and that he has even admitted visual and auditory imagery into the consciousness which his system depicts. If, then, perception and thinking are to be understood in terms of reaction, it must be that Dunlap thinks that the facts lead him there; certainly he does not arrive at this point by any systematic compulsion.

The key to reaction is the muscular theory. "In the development of perceptions, that is, during the process of learning, the muscular activities are certainly necessary." "Whether in the process of development, perceptions ever reach a stage in which the muscular part of the reactions become[s] eliminated entirely, we cannot now say" (p. 244). The usual view is just the reverse; it holds that the fairly young perception may carry meaning because of its imagery, but that the old habituated perception is meaningful by virtue of the movement with which it is correlated. It is important to note here that reaction is not movement; movement is a part of reaction. Reactions merely "end in muscular activity and in glandular activity" (p. 299). Thus Dunlap can say that it is a reaction when "the body of a word is seen as if right" (p. 250). One wonders, then, if introspection is a method for getting at some reactions, but apparently it is not. The Müller-Lyer illusion may be produced by imperceptible *Nebenreizen:* the reaction is demonstrably there without demonstrable movement although "the faint stimuli evidently can be ignored" (p. 259). But perhaps the differentia inheres in the stimulus? No, for in Aristotle's illusion the same stimulus may result in "a reaction of perceiving two objects" and in "a reaction of perceiving one object" (pp. 292 f.). When I put all these cases together I am unable to fit the reaction into an empirical psychology. It is not necessarily movement; it is not

[20] W. McDougall, *Outline of Psychology,* 1923, 189 f.

that which introspection yields; it does not reside in the stimulus. If it is fair to guess, I should say that Dunlap wants to work in terms of muscular activity, but is unable to do it. Where empirical appeal can not be made to the muscles he resorts to a vaguer terminology. The promise to use terms strictly as they are defined (p. 33) loses most of its value when important concepts lack a rigorous definition.

There is plenty of evidence of Dunlap's affection for the muscular theory. In the very beginning he says that "the term introspection should be used exclusively to indicate observation of one's own body, through the visceral and somatic senses" (p. 28). One expects a "muscularist," if he brings introspection into his system, to do so in order to handle the problems of visual and auditory imagery; but Dunlap seems here to limit introspection to a method for getting at Watson's implicit responses. We have seen that he admits visual and auditory habits of imagination (p. 157), although, perhaps, reluctantly. But how does one find out about these types if not by introspection? If we go on, we discover that learning is muscular (pp. 209 ff.), and that thus perception in the process of development is muscular (p. 244). Discrimination is reaction (pp. 244 ff.), and I can interpret the section on discrimination only by assuming that discriminatory reactions are muscular. It is less surprising to find that space perception is always muscular (pp. 260 ff.); even Wundt treated space thus. But thought, too, is muscular. "The conclusion that the muscle receptors are receptors for thought reactions is inescapable" (p. 300). The conclusion is "inescapable" but Dunlap notes the objections and says that one of them "may be solid" (p. 301). He plainly does not believe that it is. He is quite right, of course, in attributing to kinesthesis the important rôle that it plays in thinking. What he fails to do is to take account, except by way of vague phrases, of the cases where visual imagery is the criterion of the thought.

In this context one naturally wonders what Dunlap does with the context theory of perception and of thought. He begins by scorning it as "Anglo-German," for it is presumably this theory that he has in mind when he says that perception is not "sensation plus imagination" (p. 238). The reason for the scorn is not, however, apparent. Even a muscular theory of imagination could be subsumed under a context theory, and Dunlap's examples of perception are mostly good illustrations of the creation of a perception by the acquisition of a context (pp. 238 ff.). You perceive a person by hearing his voice. "The *sensed,* or directly perceived, content is composed of sounds . . . : but the total content actually perceived includes other (indirect) elements, perhaps visual, which make the sound the *voice of a*

certain person'' (p. 239). ''The process by which the content of perception initiated by various stimuli becomes complicated by the addition of indirectly perceived content to the directly perceived or sensed content, is to be designated as the *development of perception*'' (p. 240). This sounds to me like an Anglo-German context theory, and so does the later section on meaning and symbolic perception (pp. 254 ff.). The only trouble is that we can not in Dunlap determine the place of the visual data which are not sensed. One might decide, if Dunlap held to his empirical beliefs strongly enough to draw his illustrations from the experimental literature instead of making them up.

Where these sections become more empirical than speculative one follows the exposition with little objection. The doctrine of unconsciousness signs is not clear (*cf.* pp. 257 ff., 263 ff., 276 f.). There is no mention of diotic phase-relations in the section on auditory space perception (pp. 277 f.), in spite of the present crystallization of opinion on this subject.[21] There is no mention of the Mach-Breuer theory in the section on the perception of rotation (pp. 282 ff.), in spite of its usefulness and plausibility as a partial explanation of these phenomena.

The final chapter of the book, except for a brief chapter on the empirical self, is concerned with affective experience, and includes both the simple feelings and the emotions. Feelings are organic or bodily sentienda (pp. 312 ff., 340); they are internal. No sharp line can be drawn between them and the external sentienda, and the separation of feeling from sentiendum is a matter of convenience only. Emotions, moods, and sentiments differ from the simple feelings only in complexity, temporal course, permanence, and degree. Out of feeling, however, arises desire or conation.

In this chapter Dunlap's impatience of introspection becomes especially apparent, and to introspection he opposes the ''experimental'' method. ''Too much effort has been put in the past into the so-called 'introspective method' in studying feeling, and the substitution of the experimental method will unquestionably make future efforts more profitable'' (p. 323). The trouble, however, seems to be that there has been too much effort spent on ''complete introspection,'' for ''in the strict meaning of the term,'' Dunlap says later, ''all work on feelings must be fundamentally introspective, or must be based on thoroughgoing introspective observation, since the feelings are just those contents which can be observed only by the individual who has them, and who must therefore observe them by

[21] *E.g.*, E. M. von. Hornbostel and M. Wertheimer, *Sitzungsber. d. pr. Akad. d. Wiss.*, 1920, 388–396; H. M. Halverson, *Am. J. Psychol.*, 1922, 33, 178–212; 526–534.

'looking into' his own organism'' (p. 333). Here one must keep Dunlap's meaning clear. The ''introspectionalist'' might object that there has actually been but very little introspective work upon feeling for the reason that the introspective method has never been proven adequate to the problem of feeling; but in such a contention he would be using the word ''feeling'' in his own sense. Dunlap is talking about what he calls ''organic sensation,'' and the fact remains, as Dunlap points it out, that we do not, by any method, yet know very much about our insides psychologically.

Since we know so little, Dunlap thinks it well to tell us a good deal. There is a list of thirty simple feelings, which includes at one extreme pressure, pain, warmth, cold, pleasantness and disagreeableness, and at the other, nausea, malaise, revulsion, anticipation, choking, retrospection, and desire (p. 315 f.). Many of these names have as yet no scientific meaning whatsoever. For others, such as thirst, fullness of the alimentary canal, nausea, dizziness, and the localized sex-feeling, there is more or less experimental evidence to show that they are not simple. When we come to the desires a list of nine is proposed as fundamental (p. 324). In the face of so cheerful an introduction of the arm-chair method into an empirical psychology, one wishes that Dunlap would recall his own dictum: ''experiment is the real foundation of scientific certainty'' and some of his other cautions in the section on the conditions of accurate perception (pp. 252 ff.).

There are two appendices to the book: one on mental deficiency and disease and one giving a really excellent list of reference books. In the latter some of the dates are wrong. Titchener's *Textbook* was published in 1910 (not 1919) and his *Experimental Psychology* in 1901–05 (not 1915). The date of Parsons' *Colour Vision* is 1915, of Whipple's *Manual* 1914–15, and of the third edition of Helmholtz' *Optik* 1909–11. The English edition of Darwin's *Expression of the Emotions* was published in 1872, and the American edition in 1873 (not 1870).

In so far as I have found Dunlap in this review inaccurate and dogmatic instead of empirical and experimental, I have criticized him absolutely and not relatively. One should, perhaps, go deeper. It is a question whether there are many men in this world, in which it is the fashion to write text-books of psychology, who are adequate to what is now the very great body of psychological fact. It may be that it is impossible for one person any longer to write a good text. What we need, as Dunlap points out (p. 8), is the handbook written by specialists. I think only that it is a mistake for Dunlap and other text-book writers to produce texts before the handbook when they need the handbook in order to write the texts. What we need most

is research, and next most advanced texts. It is unfortunate that the energy that might thus be spent goes forever into the production of new elementary texts of which we already have more than a plenty.

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The Public Conscience. GEORGE CLARKE COX, with an introduction by Richard C. Cabot. New York: Henry Holt and Co. 1922. xix + 483 pp.

The purpose of this book is to open the way to a science of ethics, and with this purpose there can be nothing but sympathy. But in trying to make ethics merely empirical and ridding it of its controversial character, Mr. Cox will actually stir up much fresh controversy. He has departed from tradition and inaugurated a method new in the subject though tried and found fruitful in the study of law and medicine,—the method of cases. Now the implications of the case method as used in the study of human conduct where normative judgments rather than descriptions have been current are the implications of ultra-empiricism; and it is consistently with those implications that Mr. Cox claims for his book merely the value of "a sort of cross-section of contemporary society's judgment about the obligations of its members to the group." Explicitly, then, he disclaims any interest in whether the decisions of the law courts which he studies are right or wrong, good or bad. Nevertheless, the inescapable suggestion is that what society judges to be right *is* right, or, put in another way, that there is no difference between the *ought* and the *is* in the matter of ethical opinion. It is with this suggestion that many readers will undoubtedly quarrel even while they find the book immensely readable. It is beyond question a book which will be found immensely readable, consisting as it does almost entirely of actual cases, many of them picturesque and amusing, all of them illustrative of some interesting feature of legal standards of judgment.

The majority of the cases treated of are contemporary, and derived from reports of action of American courts, but a few date back a century and more, and some are quotations from British legal decisions. As to subject-matter, the cases are classified by Mr. Cox into four groups: (1) those involving offenses against the right of preservation of life and limb; (2) offense against property; (3) offenses against security; and (4) offenses against liberty. It is thus a wide variety of situations that are dealt with—a wide variety and yet a far narrower range than is usually ascribed to ethics. For since the courts never can—and never should—attempt to handle anything but the cruder and more obvious kinds of human trans-

gressions, the more delicate and difficult ethical situations must by Mr. Cox's method be left untouched. This is not to say that his method, so far as it goes, is unsound. It is merely to point out one of its quite undeniable limitations. And there is another limitation, closely related to the one just mentioned. The author himself avows it, and by many it will not be regarded as a defect. The method pursued is frankly behavioristic. Of the social judgments which are drawn upon there are none which concern motives; all have to do with completed acts. "My method," he says,—"*takes no account of frustrated or incomplete intents.*" Now, again, this implies nothing as to the success of behavioristic ethics,—so far as it goes. But since the claim of *The Public Conscience* is an ambitious one—no less than the substitution of the case method in ethics for all previously used methods—to note the kinds of cases which it ignores is essential for its just evaluation.

For those who retain the old-fashioned belief in an objective good that outlasts the vicissitudes of changing opinion Mr. Cox's book should have significance as well as for those who feel no desire to go beyond the pronouncements of society. For, in the face of the variousness of possible ethical standards, a rather complete survey of actual social judgments should be made before any one "system" is chosen. As has already been indicated, it is perhaps Mr. Cox's failure to extend the use of his method rather than its inherent defects that should be criticized. If all opinions at all times and in all places were to be taken account of in studying the meaning of right and wrong, then we should have, indeed, a very wholesome empiricism and the material for a proper *prolegomenon* to ethics. But perhaps after all such catholicity would not be in the spirit of our author's actual enterprize. For there lurks behind his observations a suggestion that it is only contemporary opinion that he really regards as important. In that case, his book might well stir up the wrath of many empiricists as well as the majority of rationalists.

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NOTES AND NEWS

For the entertainment of our readers we reprint the following poem which appeared in the *Spectator* of Columbia University, November 16, 1923.

TO A CLASS-ROOM METAPHYSICIAN DISCUSSING THE NATURE OF REALITY

In the realm of metaphysics I enjoy a daily stroll
Around the rim of Socrates' dominion,
Where philosophers, indulging in catharsis of the soul
Distinguish cosmic truths from mere opinion.

On the Nature of Reality these gentlemen are hot;
Each local Plato pulls a solemn phiz
While Discussing in his lectures the Nothingness of Not
And the fundamental Isness of the Is.

Oh, the Isness of the Wasn't
And the Wasness of the Ain't
And the Don'tness of the Doesn't
Makes my inner vision faint.
My tongue is thickly coated
With a philosophic fuzz
Gained by chewing on the problem
Of the Isness of the Was.

"Appearances are Many, but Reality is One,"
Is the essence of a hundred thousand pages.
When you learn this little formula you think your task is done,
But you get a rude upheaval from the sages
Who feel duty-bound to ask you in the mid-semester quiz
Without apparent vestige of a cause,
"Discuss the true conception of the Eleatic Is
In connection with their doctrine of the Was."

Oh, the A-ness of the B,
And the P-ness of the Q,
Open dialectic vistas
The eye cannot see through.
From whence, loose metaphysics
And syllogisms roll,
Deducing from its A-ness
The nature of the whole.

Let me recommend philosophy to those who rather doubt
The appearance of Seeming and of Being,
If you really would decipher whatinhell it's all about
And learn the awful *Truth* of what you're seeing
You should decorate your discourse with a dualistic fringe,
Ambiguous, equivocal; and pause
To affirm in every sentence that Reality *must* hinge
On this dratted awkward business,
of the Isness,
of the Was,
On the sempiternal Isness of the Was.

RONDO ROBINSON